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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,450	11/20/2001	Yuichi Takamine	36856.571	8189

7590 12/05/2003
Keating & Bennett LLP
Suite 312
10400 Eaton Place
Fairfax, VA 22030

EXAMINER

SUMMONS, BARBARA

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 12/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/991,450	Applicant(s) TAKAMINE, YUICHI	
	Examiner Barbara Summons	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-19 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4/1&5/8/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The replacement sheets of drawings were received on 9/4/03. These drawings are approved.

Withdrawn Claim Rejections - 35 USC §§ 112 and 102

2. The amendment and arguments received 9/4/03 have overcome all prior §§ 112 and 102 rejections.

New Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5 and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either one of Nagatsuka et al. JP 2000-151337 or Taguchi et al. EP 0 800 270 A2 (each of record) in view of Bauer et al. WO 00/25423.

Each of Nagatsuka et al. Fig. 1 and Taguchi et al. Fig. 5 discloses the surface acoustic wave (SAW) filter of the invention (i.e. with point-symmetry) as discussed in length in paragraphs 6 and 8, respectively, of the prior Office action dated 2/26/03.

However, neither Nagatsuka et al. nor Taguchi et al. discloses that "at least one of the IDTs has at least one finger electrode having a width that is different from a width of at least another finger electrode of the at least one of the IDTs" (see claim 1, the last two lines thereof).

Bauer et al. discloses that it is known in longitudinally coupled surface acoustic wave filters to provide the IDTs with linearly decreasing/increasing electrode finger widths/periods at the junction between two IDTs in order to reduce scattering losses (see the abstract and Figs. 1, 3, and 4b). It should be noted that the prior art Fig. 1 also includes a wider electrode finger at the ends of the center IDT.

Consequently, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the SAW filter of either of Nagatsuka et al. (Fig. 1) or Taguchi et al. (Fig. 5) by having provided electrode fingers of linearly increasing/decreasing widths at the junctions of the adjacent IDTs as taught, for example, by Bauer et al. (Figs. 1, 3, and 4b), because such an obvious modification would have reduced the scattering losses of either of the filters as suggested by Bauer et al. (see the abstract)[see also the provided entire English language equivalent Bauer et al. U.S. 6,420,946].

5. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over either one of Nakazawa et al. JP 11-97966 or Kawakatsu et al. U.S. 5,568,002 (each of record) in view of Bauer et al. WO 00/25423.

Each of Nakazawa et al. Fig. 1 and Kawakatsu et al. Fig. 1B discloses the surface acoustic wave (SAW) filter of the invention (i.e. with point- symmetry) as discussed in length in paragraphs 7 and 9, respectively, of the prior Office action dated 2/26/03.

However, neither Nakazawa et al. nor Kawakatsu et al. discloses the required at least one electrode finger having a different width.

As discussed in the immediately preceding rejection, Bauer et al. discloses such different width electrode fingers in longitudinally coupled SAW filters for providing reduced scattering losses in the filters.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the SAW filter of either of Nakazawa et al. (Fig. 1) or Kawakatsu et al. (Fig. 1B) by having provided electrode fingers of linearly increasing/decreasing widths at the junctions of the adjacent IDTs as taught, for example, by Bauer et al. (Figs. 1, 3, and 4b), because such an obvious modification would have reduced the scattering losses of either of the filters as suggested by Bauer et al. (see the abstract).

Allowable Subject Matter

6. Claims 7-19 are allowable over the prior art of record.
7. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 7 and 13, the prior art of record does not disclose or fairly suggest a SAW filter having each of the specifically recited features, and especially having the balanced/unbalanced terminal(s) and/or ground terminal connections to the

Art Unit: 2817

“opposing” portions of the “first” and “third” IDTs (see claims 7 and 13, the last nine lines thereof). Regarding new claim 19, the prior art of record does not disclose or fairly suggest a SAW filter having the recited “point-symmetry” of the “unbalanced signal terminal and the ground line” (emphasis added)[see the last four lines of the claim]. The nearest prior art is Edmonson U.S. 6,255,915, wherein the bottom SAW filter in Fig. 4 shows point-symmetry of the two balanced signal terminals and the ground line.

Response to Arguments

9. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Summons whose telephone number is (703) 308-4947. The examiner can normally be reached on M-Th, M-Fr.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Pascal can be reached on (703) 308-4909. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9318.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink that reads "Barbara Summons". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

BARBARA SUMMONS
PRIMARY EXAMINER

bs
November 28, 2003